

ENGLISH TRANSLATION AND DRAWINGS

FOR

JAPANESE PATENT DOCUMENT

56-136642

### Specifications

1. Name of invention.

Upright style electric vacuum cleaner

2. Scope of the idea covered under this application

The fan motor, the dust collection area and the filter are housed in the main unit. The suction unit which is connected to the main unit is movable. The main unit, which is the dust collecting part, and the suction unit are connected by a flexible stretch hose. In addition, the flexible stretch hose is easy to attach and detach. These are the key features of this upright type electric vacuum cleaner.

3. Detailed explanation of this idea

In addition to allowing quick removal of dust clogs, this invention, an upright style electric vacuum cleaner has many features.

A typical upright vacuum cleaner is typified by the main unit containing the fan motor and below it, the suction area. This configuration results in limited ability to clean in areas such as corners of rooms. In addition, there is often a hose between the main unit and the suction area, which hose is occasionally prone to dust clogs.

This invention resolves this problem. This is explained in the following practical example and with the attached charts.

As shown in the chart, for this upright style vacuum cleaner there is a handle (1) attached to the main unit (2), and below that is the suction unit (3). There is a space at the bottom of the main unit (2) where the fan motor (4) is placed. The open front, boat shaped upper case (5) is mounted above this. (6) is a partition. (7) is the air outlet (8) is the main suction inlet on the back of the case (5) where the flexible stretch hose (9) coming from the suction unit (3) attaches. (10) is the exhaust. (11) is the brush agitator which is mounted in the suction area (3) and is turned by belt (12) attached to the fan motor (4).

(13) is easy to remove from the case (5), and replace, with it's lower lip (14) fitting into a groove (15) in the partition (6), and pushed flush with hole (17) at the top of the case (5). (13) is then secured by the latch (16) which is mounted above the handle (18) to the top of the case.

The dust chamber (13) which empties on the bottom, has a fitting on the back which connects with the suction inlet (8) and backing (19) connecting with the case suction inlet (20). (21) is a flap to prevent backflow. (22) is an easy to replace filter which fits in the bottom of the dust chamber (13).

As an explanation of the function, the process starts with the action of the agitator brush (11) mounted in the suction area (3) loosening the dust. The suction from the fan motor (4) then creates suction which pulls the dust through the flexible stretch hose (9), through the

air outlet (8), the case suction inlet (20), into the dust chamber (13), and then to the filter (22). As the dust builds up in the dust chamber (13), it may become necessary to remove the dust chamber (13) from the main unit (2), and empty the dust by removing the filter (22).

Further detail on the connection and path between the main unit (2), and suction unit (3) has the flexible stretch hose (9) attaching to the angled upper tube (23) which connects with the suction inlet (8), and to the lower suction inlet (24). In the suction unit (3), around the agitator brush (11) is the suction area (25), which flows into the suction tube (26), to which the lower suction inlet can be easily attached or removed (24).

The flexible stretch hose (9) which connects the main unit (2) and the suction unit (3) is designed to be used in a variety of ways. Even while the fan motor (4) is running, if there is a dust clog, you can remove the lower suction inlet (24) from the suction tube (26). In other words, you can free and straighten the flexible stretch hose (9) to allow the dust clog to be suctioned free. Also, by using the lower suction inlet (24), and attaching a small cleaning end (27) with an extension tube (28), you can clean in corners that would be difficult with the suction unit (3). By using the lower suction inlet (24) on the end of the flexible stretch hose (9) or with the extension tube (28), you can increase the utility of the unit.

In this way, with this invention, not only is it easy to resolve dust clogs, but with the use of the flexible stretch hose, it is easy to clean in difficult areas such as corners. Thus, excellent results can be obtained through the use of this invention.

4. Simple explanation of the charts

Chart 1 shows a simple side view of a practical example of this invention, an upright type electric vacuum cleaner. Chart 2 is a cross section side view. Chart 3 shows usage information.

2...Main Body      3...Suction Unit      4...Fan Motor  
9...Flexible Stretch hose      13...Dust Collection Container (Dust Chamber)  
26...Suction Unit Connection (Suction Tube)      22...Filter  
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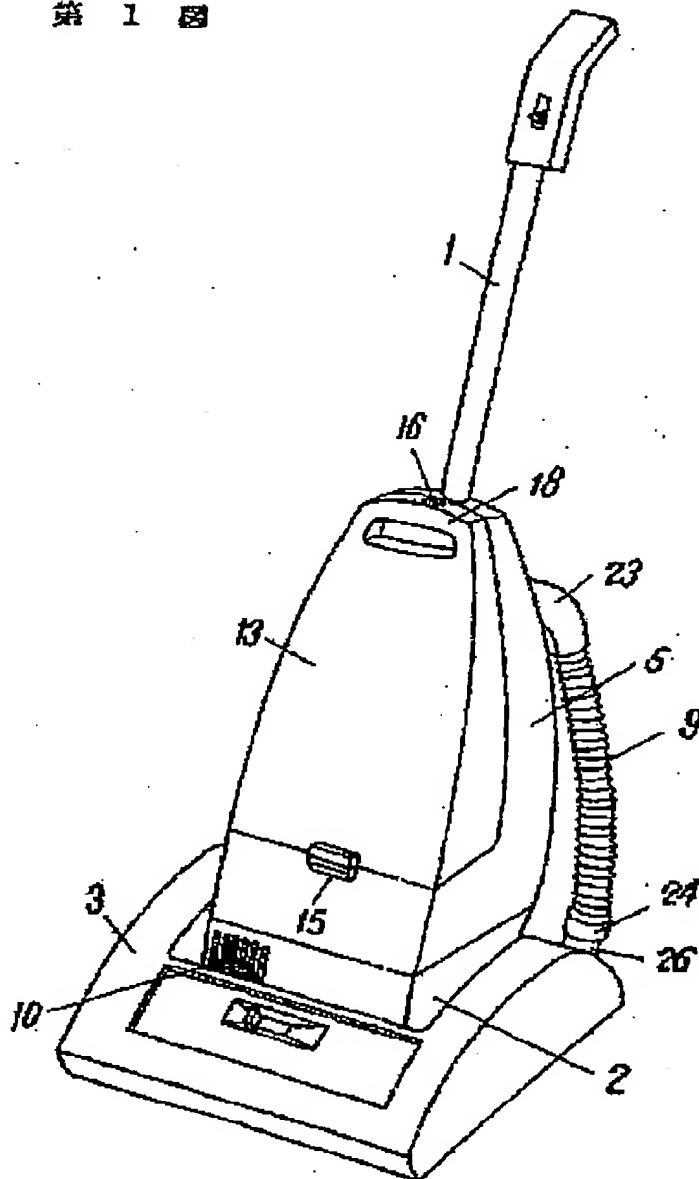
Chart 1  
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Chart 2  
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Chart 3  
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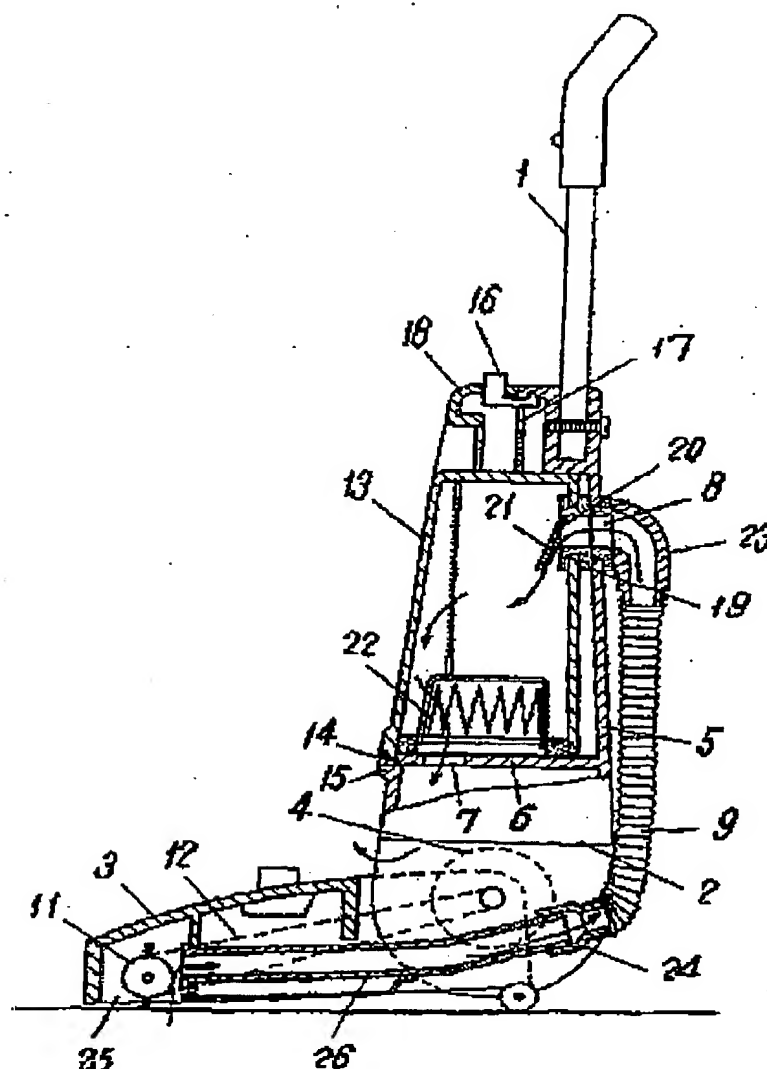
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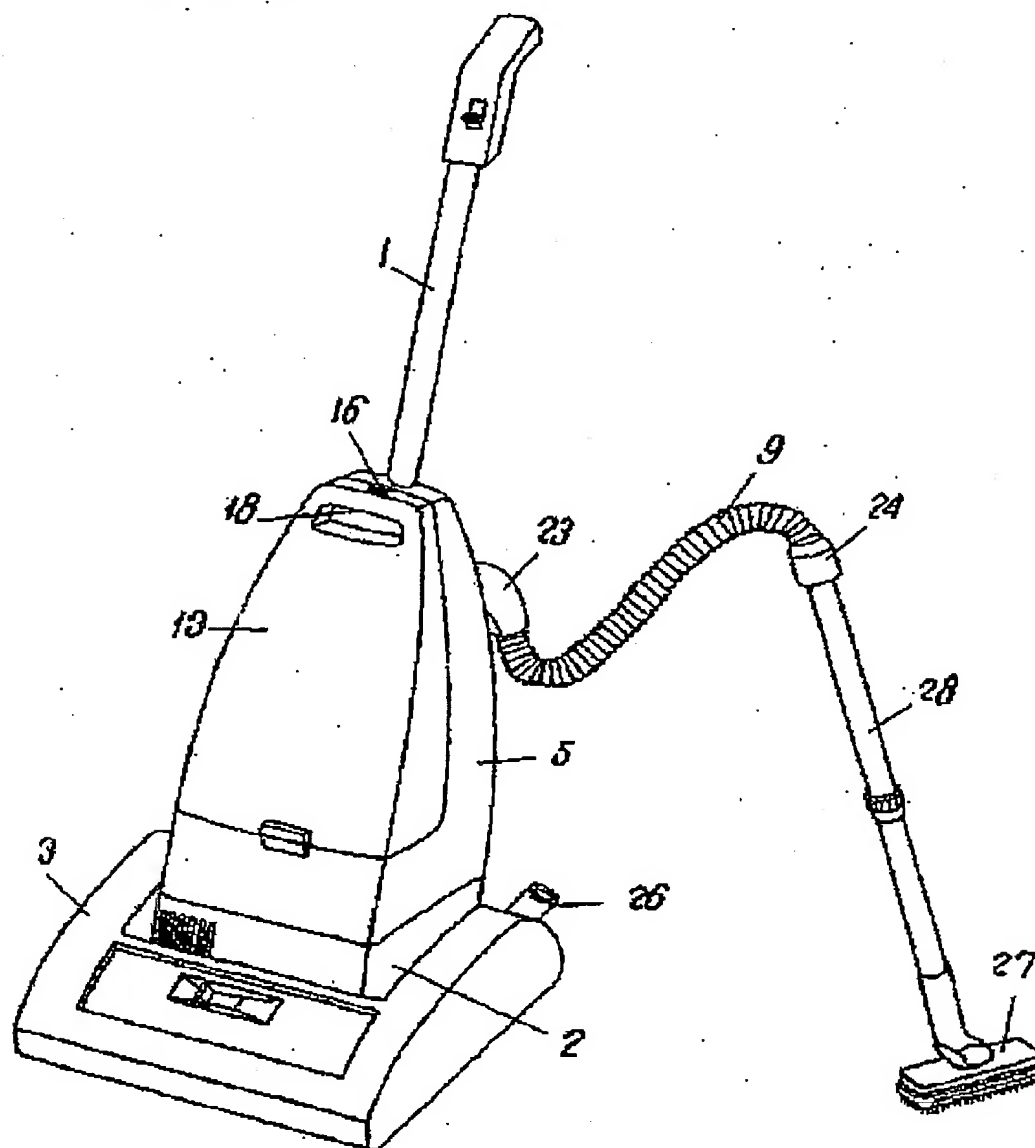
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